American Municipal Power

AMP Hydro Phase I Project Update Presentation to Martinsville City Council

November 22, 2011

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Meeting Agenda

- 2006–2010 Capital Budget Recap
- 2010–2011 Budget Changes
- Cannelton, Smithland, Willow Island (AMP Hydro Phase I) Status
- Hydro Phase I Levelized Costs
- Power Supply Portfolio

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Budget/Project Update 2006-2010

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Original feasibility study costs – 2006 price level

7.1 Cost Estimate

The estimated cost of the projects is summarized in Table 2.

Table 2 - Project Cost Summary (million $ at 2006 price level)

Project	Construction Cost	Hydraulic Model	Engineering and Construction Management	Total
Smithland with Bulb Units	241.66	1.00	16.92	259.58
Smithland with MCC Kaplan Units	226.39	1.00	15.85	243.24
Cannelton	242.37	1.00	16.97	260.34
Willow Island	171.17	1.00	11.98	184.15

Total Cost: $704,070,000

Feasibility Study Assumptions

- MWH estimates were high level -30% to +50% accuracy.
- Estimates were prior to subsurface exploration (rock was assumed at 75′ depth for Cannelton and Smithland and is now at 130′/180′ respectively).
- Estimates prior to Hydraulic Model Studies
- Interest rate assumption for total project was 4.95 % in Sept. of 2007
- Term of financing was 40 years.
- Energy generated was 935,000 Mwhs

Updated capital costs (2008)

Project	2007(Millions)	2008 (Millions)
Cannelton	$260.34	$407.26
Smithland	$259.58	$432.19
Willow Island	$184.15	$262.52
Total	$704.07 M	$1,101 M

2008 UPDATED CAPITAL COST ASSUMPTIONS

- MWH capital cost estimates -20% to +30% accuracy
- Turbine generator bids taken:
  - 39% higher than MWH estimate ($83M Increase - 3 bids received)
  - 15% greater energy production (935 GWh vs. 1,076 GWh)
  - Bids were taken at peak of commodity markets
- Subsurface exploration completed
  - Top of rock 55′ to 105′ deeper than anticipated
  - Rock elevation will effect cofferdam excavation and powerhouse costs as a result of ground improvement
- Bids for gates, cranes, and transformers, cofferdam and powerhouse design is not completed.

Updates capital cost estimates (Millions) 2009 BAN Notes financing (Feb. 2009)

Project	2007	2008	2009
Cannelton	$260.34	$407.26	$415.76
Smithland	$259.58	$432.19	$395.86
Willow Is.	$184.15	$262.52	$257.62
Total	$704.07 M	$1,101 M	$1,069 M

2009 Financing Capital Cost assumptions

- MWH capital cost estimates -20% to +30% accuracy
- Subsurface Impacts

  FERC review of MWH design for Cannelton and Smithland foundations needed to be improved for earthquakes thus increasing engineering design costs and plant costs
- Bids received for gates, cranes, and transformers ($61M decrease)
- Bids for Cannelton / Smithland cofferdam excavation ($32.7M decrease)
- All-In True Interest rate after BABS subsidy for 2009 Financing 4.22%
- Term of financing for 2009 only was 30 years.
- Bid for Cannelton power house not actual (MWH est.)

Updated capital cost estimates (Oct, 2010)

- Used for anticipated final project financing

Project	2009(Millions)	2010 (Millions)
Cannelton	$385.85	$474.72
Smithland	$405.73	$504.96
Willow Island	$257.62	$348.88
Total	$1,049.2 M	$1,328.56 M

October 2010 Capital Cost Assumptions

- MWH estimates for entire project were reflective of the Cannelton powerhouse bid
  - Cannelton Bid was 37% higher ($219M was low and estimated was $167M and final negotiated to $192M)
  - Estimates for CSW included $111 M in contingency
  - Financing included $40 M in Corps bond money that is returned to construction fund at completion
  - Engineering / construction management estimated to complete increased $20.3 Million
- Overall increase was 27%
- All-In True Interest Rate after BABS subsidy for 2010 Financing 5.33%
- All-In True Interest Rate after BABS subsidy for 2009 & 2010 Financing 4.98%
- Term of financing for 2010 only was 35 Years

Updated capital cost estimates based on Meldahl bids (April, 2011)

Project	2010(Millions)	2011 Update (Millions)
Cannelton	$474.72	$456.43
Smithland	$504.96	$473.64
Willow Is.	$348.83	$334.45
Total	$1,328.56 M	$1,264.52 M

Hydro Phase 1 Project
Owners costs summary
(AMP Cost Not Financing)

Type of Owners Costs	2009 Feasibility Study	2010 Feasibility Study	Difference
AMP Costs (Includes Insurance, Legal, Consultant)	90,602,389	94,706,212	4,103,823
Performance Bond/Collateral	52,450,966	51,020,384	(1,430,582)
Total	$ 143,053,355	$ 145,726,596	$ 2,673,241

Hydro Phase 1 project Financing Impacts

Year	Total Amount of Debt($)	All-In Interest Rates	Final Maturity of Debt (Years)
2007	$841,455,000	4.95	40
2009	$1,474,795,000	4.22	30
2010	$2,045,425,000	4.98	35

Overview of Hydroelectric Phase 1 Financing

- **First permanent financing in November 2009 - $666,435,000**
  - All-In TIC 4.221%
  - Comprised of four series of debt:
    - $24,425,000 Series A (Federally Taxable) All-In TIC 4.401%
    - $497,005,000 Series B (Federally Taxable – Build America Bonds) All-In TIC 4.218%
    - $122,405,000 Series C (Federally Tax-exempt) All-In TIC 4.228%
    - $22,600,000 Series D (Tax-Credit CREBs) Private Placement TIC 2.52%
- **Final permanent financing in December 2010 - $1,378,990,000**
  - All-In TIC 5.332%
  - Comprised of three series of debt:
    - $152,995,000 Series A (Federally Taxable) All-In TIC 7.498%
    - $1,109,995,000 Series B (Federally Taxable – Build America Bonds) All-In TIC 5.265%
    - $116,000,000 Series C (Tax Credit CREBs) All-In TIC 3.191%
- **Total Financing $2,045,425,000**
    - All In TIC 4.978%
    - Final Maturity Date February 2050
    - Largest user of CREBs to date by a Public Power cooperative
    - Expect to receive $1,308,129,639.16 in BABs subsidy over the term of the bonds
    - Expect to receive $69,118,252 in CREBs subsidy over the term of the bonds

Hydro Phase 1 project Financing Impacts (Continued)

- Commercial Operation Dates changed on all 3 Hydro projects
  - The Capitalized Interest dates changed between 10 to 18 months
    - Cannelton from 9/22/2013 to 12/15/2014 (15 months longer)
    - Smithland from 6/30/2014 to 4/15/2015 (10 months longer)
    - Willow Island from 3/6/2014 to 9/15/2015 (18 months longer)
  - Increase in capitalized Interest for the project
    - Increase was approximately $48.6 million

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Budget/Project Update as of May 2011

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Budget / project approach

- AMP met with MWH and internal staff and reviewed the total budgets for all of the projects as a result of the lower powerhouse bids received on the Meldahl Project.
- AMP adjusted projects costs and contingencies to the projects where additional project savings can be achieved.
- AMP continues working to implement this planned approach for all of the projects.

Cannelton

- Original budget $478,808,872
- New budget $456,432,128

- Net Project Savings $22,376,744

- 3.1% Contingency included in the above adjusted budgeted capital (construction) costs.

Smithland

- Original budget $508,786,526
- New budget $473,640,731

- Net Project Savings $35,145,795

- 4.6% Contingency included in the above adjusted budgeted capital (construction) costs.

Willow Island

- Original budget $354,564,822
- New budget $334,449,933

- Net Project Savings $20,114,889

- 4.6% Contingency included in the above adjusted budgeted capital (construction) costs.

Cannelton, Smithland, Willow Island Summary

- Original budget $1,342,160,220
- New budget $1,264,522,792

- Net Project Savings $77,637,428

- 4.0% Overall contingency included in the above adjusted budgeted capital (construction) costs.

Budget Progress

- Over the three projects (Cannelton, Smithland, and Willow Island), we have reduced the budgets by $77.6 M.
- We are working on other areas of additional savings and we will be reporting back on those efforts.
- We are reviewing the most economical way to utilize the CSW savings to reduce costs (i.e. pay down debt, refunding, etc.)

UPDATED CAPITAL COST ESTIMATES
BASED ON MELDAHL BIDS (April 2011)

Project	2010 (Thousands)	2011 Update (Thousands)	Difference
Cannelton	$467,920	$445,543	$22,377
Smithland	$495,096	$459,950	$35,146
Willow Is.	$345,325	$325,210	$20,115
Sub-Total	$1,308,341	$1,230,703	$77,638

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Projects Status/ Schedule

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Overall Status for Cannelton, Smithland & Willow Island

- Cannelton, Smithland, and Willow Island projects are all under construction
- Turbine Generator, Design / Build cofferdams, Gates and Trashrack, Cranes, Transformers, Diesel Fuel, and reinforcing steel for all 3 projects have been awarded
- Trashrakes and lograbbers are under negotiations
- Negotiations are ongoing for the Smithland and Willow Island general construction of the Powerhouse Contracts
- Transmission line work is as follows:

  Cannelton – near complete

  Smithland – pending final regulatory and ISO approvals

  Willow Island – pending final negotiations with Cytec and FE (APS) / PJM for the substation

Cannelton

Cannelton Hydro Project Status

- Project and contract status for Cannelton
  - Ground breaking was August 25, 2009
  - Land Clearing has been completed
  - Major Contracts

Turbines	Awarded June 2008 (75.0% spent)
Cofferdam	Awarded February 2009 (100% complete / 100% spent)
Powerhouse Crane	Awarded July 2009 (28.7% spent)
Powerhouse Gates	Awarded October 2009 (79.0% spent)
Powerhouse Construction	Awarded September 2010 (18.0% spent)
Transformer	Awarded November 2009 (92.8% spent)

  - Completion Date: May 28, 2014

Smithland

Smithland Hydro Project Status

- CJ Mahan is under contract to Design / Build the cofferdam, excavation, and the Phase I of ground improvements
- CJ Mahan has provided a price for the general construction of the Powerhouse
  - AMP is reviewing this along with a proposal to complete the Phase II ground improvements
- The Owner Furnished Equipment is in manufacturing and some is being stored off site until installation

Smithland Hydro Project Status

- Project and contract status for Smithland
  - Ground breaking was September 1, 2010
  - Land Clearing has been completed
  - Major Contracts

Turbines	Awarded June 2008 (64.3% spent)
Cofferdam	Awarded February 2010 (50% complete / 48.3% spent)
Powerhouse Crane	Awarded April 2010 (29.4% spent)
Powerhouse Gates	Awarded March 2010 (58.6% spent)
Powerhouse Construction	To be awarded October/November 2011
Transformer	Awarded November 2009 (82.0% spent)

  - Completion Date: January 30, 2015

Willow Island

Willow Island Hydro Project Status

- The Willow Island cofferdam and excavation contract has been awarded to Ruhlin Construction
- As a result of an existing sheetpile obstruction, Ruhlin had to add one coffercell. A change order was issued
- The slurry wall is complete
- Cofferdam schedule is approximately 114 days ahead of schedule
- We are continuing negotiations with Ruhlin on the general construction of the Powerhouse Contract

Willow Island Hydro Project Status

- Project and contract status for Willow Island
  - Ground breaking took place July 21, 2011
  - Land Clearing has been completed
  - Major Contracts

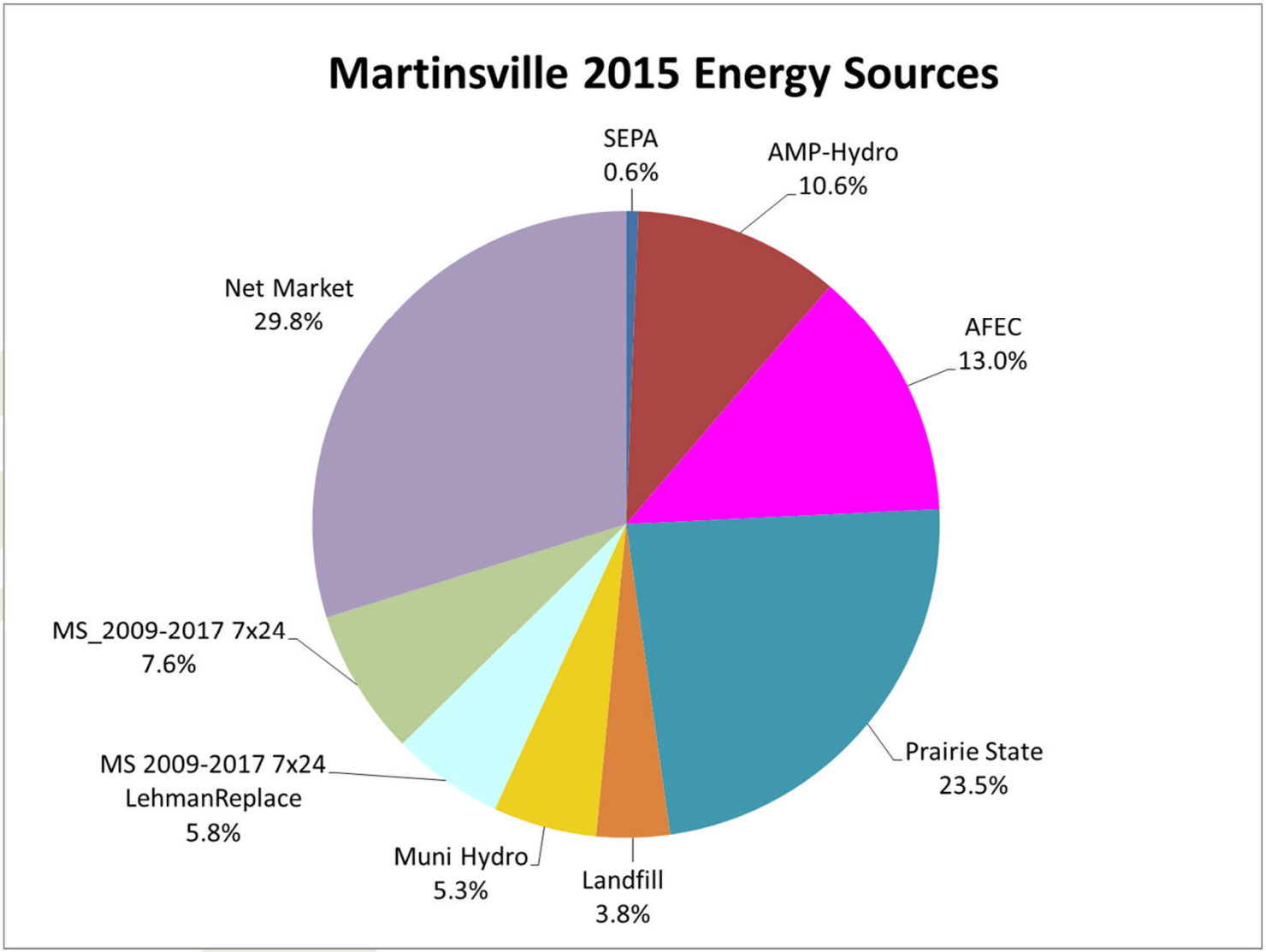
Turbines	Awarded June 2008 (65.4% spent)
Cofferdam	Awarded September 2010 (35% complete / 32.8% spent)
Powerhouse Crane	Awarded April 2010 (0% spent)
Powerhouse Gates	Awarded March 2010 (48.9% spent)
Powerhouse Construction	To be awarded October/November 2011
Transformer	Awarded November 9, 2009 (81.4% spent)

  - Completion Date: January 14, 2015

Levelized Cost Comparison

	Prior to Constr. Cost Reduction	After Constr. Cost Reduction
	$/MWh	$/MWh
Resource Costs		
Hydro Phase 1	124.49	117.75

Power Supply Portfolio

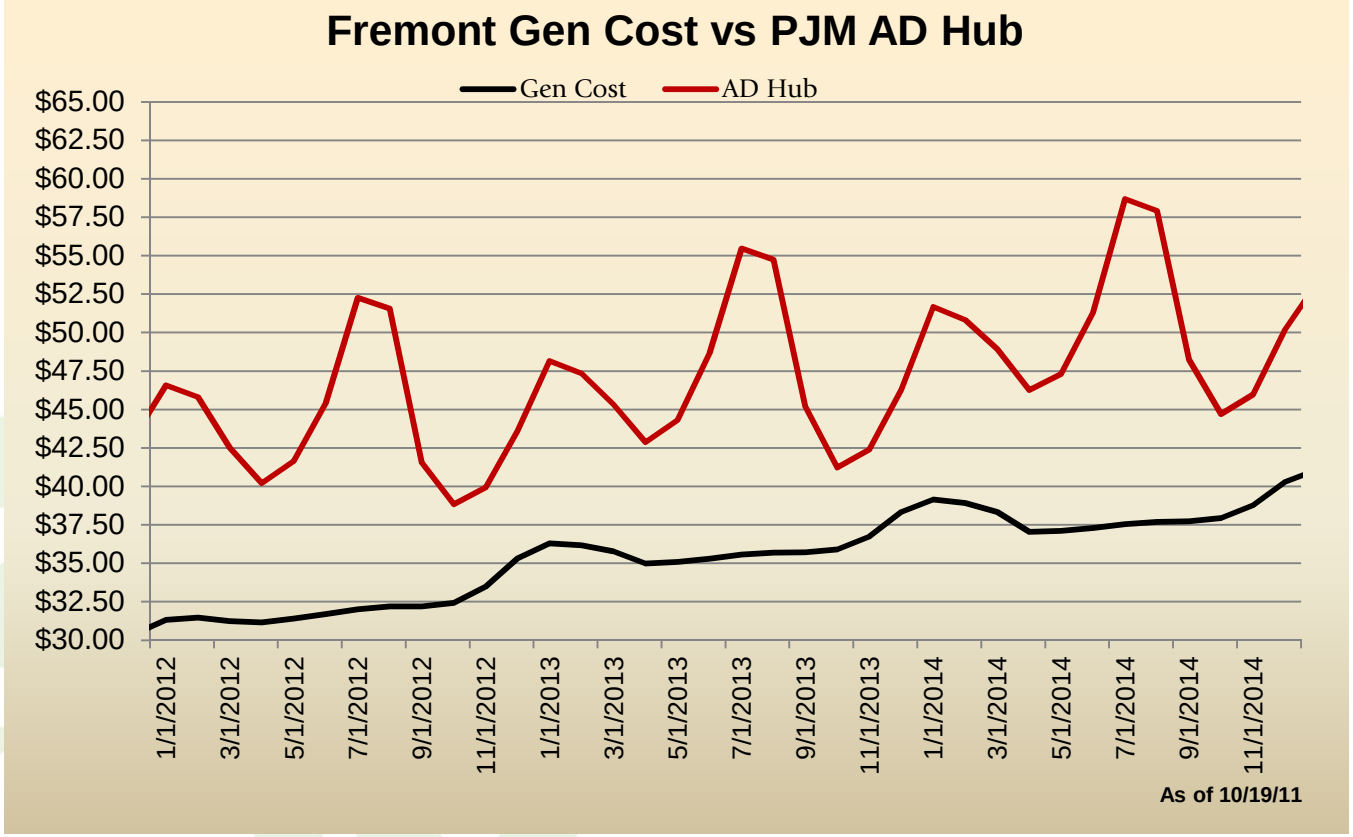


AFEC Project Update

AFEC Startup, Commissioning & Testing Schedule

Milestone	Date
AFEC Asset Purchase and Financial Closing	7/28/2011
Full Notice To Proceed (FNTP) issued to PIC Group – Commissioning Contractor	7/29/2011
FNTP issued to NAES - O&M Contractor	7/29/2011
Start of Commissioning	8/22/2011
Start of Performance Testing	11/28/2011**
Complete Performance Testing	12/8/2011**
Commercial Operation	1/1/2012

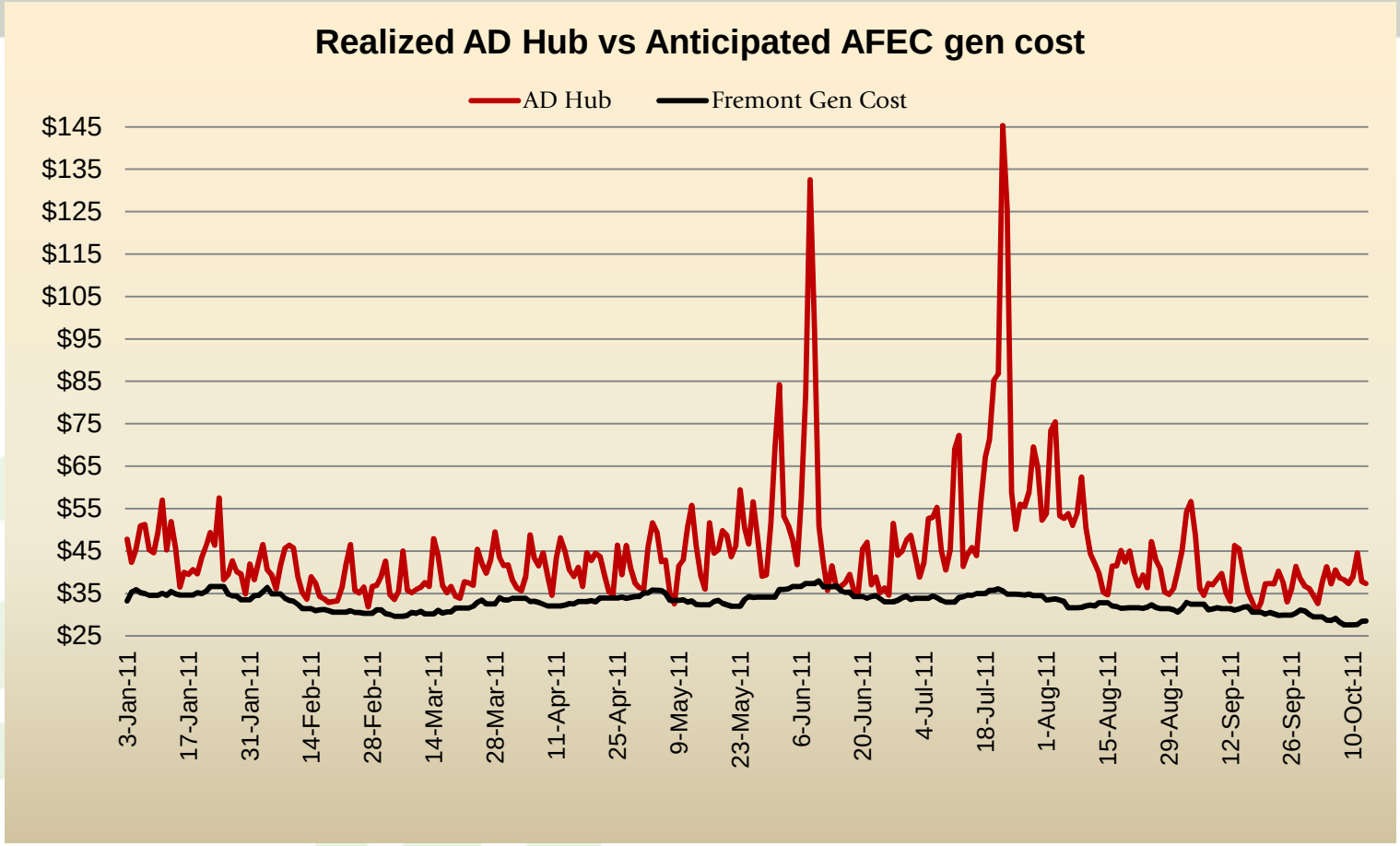
** Milestone Dates included in PIC Group agreement



Percentage market over anticipated Gen cost for next 3 years

Cal 2012: 37.3%
Cal 2013: 30.2%
Cal 2014: 31.5%
Overall: 33.0%

Gen Cost = 6.81 * (HH + .28) + VOM of $2.52/MWh
Market = AD Hub



Market price over anticipated gen cost if operational in 2011: 36.07%

Gen Cost = 6.81 * (HH + .28) + VOM of $2.52/MWh
Market = AD Hub